

**In the Claims**

1. (Currently Amended) An end piece for spraying a product, comprising a cylindrical body having an axial channel whose first end is delimited by a transverse wall exhibiting a spray orifice and whose second end is capable of communicating with a reservoir, the end piece further comprising an axial core disposed in the channel, whose first end is situated facing said transverse wall and defines with the latter a spray chamber and whose second end is situated in the vicinity of the second end of the channel, a communicating passage between said second end and the spray chamber being formed between the core and the wall of the channel,

wherein the core comprises a fastening flange having a fastening edge which is directed towards the second end of the core and which cooperates with the wall of the channel to retain the core in said channel,

wherein the core comprises, at its second end, an end portion of reduced diameter around which an annular space is defined in the channel, the reduced diameter being constant along at least a portion of the end portion.

2. (Previously Presented) An end piece according to claim 1, wherein the fastening flange comprises at least one annular flange sector delimited by a slot.

3. (Currently Amended) An end piece according to claim 1, wherein the channel has a fastening portion, with which the fastening flange cooperates and over which the diametral dimensions of the channel are less than the diametral dimensions of said fastening flange, and an insertion portion, which extends between the fastening portion and the second end of the channel and over which the diametral dimensions of the channel are at least substantially equal to those of the fastening flange.

4. (Previously Presented) An end piece according to claim 1, wherein the core exhibits means forming comprises an axial bearing surface, which cooperates with the wall of the channel.
5. (Previously Presented) An end piece according to claim 4, wherein the core comprises at least one radially projecting cylinder sector delimited by a slot.
6. (Currently Amended) An end piece according to claims [[2]] 5,  
wherein the fastening flange comprises at least one annular flange sector delimited by a slot, and  
wherein the annular flange sector is formed by a shoulder situated at the end of the cylinder sector which is directed towards the second end of the core.
7. (Previously Presented) An end piece according to claim 1, wherein the spray chamber is formed by a cavity defined between the transverse wall of the body and the first end of the core abutting against said wall, said cavity comprising at least one non-radial slot formed in the first end of the core or the transverse wall.
8. (Cancelled)
9. (Currently Amended) An end piece for spraying a product, comprising a cylindroconical body having an axial channel whose first end is delimited by a transverse wall exhibiting a spray orifice and whose second end is capable of communicating with a reservoir, the end piece further comprising an axial core disposed in the channel, whose first end is situated facing said transverse wall and defines with the latter a spray chamber and whose second end is situated in the vicinity of the second end of the channel, a

communicating passage between said second end and the spray chamber being formed between the core and the wall of the channel,

wherein the core comprises a fastening flange having a fastening edge which is directed towards the second end of the core and which cooperates with the wall of the channel to retain the core in said channel,

wherein the core comprises, at its second end, an end portion of reduced diameter around which an annular space is defined in the channel,

An end piece according to claim 8, wherein the end portion comprises protruding axial fins.

10. (Previously Presented) An end piece according to claim 1, wherein the core is bevelled at its second end.

11. (Previously Presented) An end piece according to claim 1, wherein the wall of the channel comprises a shoulder in the vicinity of the second end of said channel and in that the core extends, towards the second end of the channel, beyond said shoulder.

12. (Previously Presented) An assembly of an end piece according to claim 1, and a tubular rod providing connection to a reservoir, wherein the second end of the channel is plugged together with the tubular rod and the second end of the core is engaged in said rod.

13. (Currently Amended) An end piece for spraying a product, comprising a cylindro-conical body having an axial channel whose first end is delimited by a transverse wall exhibiting a spray orifice and whose second end is capable of communicating with a reservoir, the end piece further comprising an axial core disposed in the channel, whose first end is situated facing said transverse wall and defines with the latter a spray

chamber and whose second end is situated in the vicinity of the second end of the channel, a communicating passage between said second end and the spray chamber being formed between the core and the wall of the channel,

wherein the core comprises a fastening flange having a fastening edge which is directed towards the second end of the core and which cooperates with the wall of the channel to retain the core in said channel,

~~An assembly according to claim 12,~~ wherein the second end of the core is in axially bearing contact with ~~[[the]]~~ an inner periphery of the rod and ~~in that wherein~~ at least one flow groove is formed between said second end and said inner periphery.

14. (Currently Amended) An assembly according to claim 13 ~~having an end piece according to claim 9,~~

wherein the end portion comprises protruding axial fins, and

wherein the protruding axial fins cooperate with the inner periphery of the rod and the spaces between said protruding axial fins form flow grooves.

15. (Previously Presented) An assembly according to claim 13, wherein the flow groove is formed by at least one slot in the inner periphery of the rod.

16. (Previously Presented) An end piece according to claim 2, wherein the channel has a fastening portion, with which the flange cooperates and over which the diametral dimensions of the channel are less than the diametral dimensions of said flange, and an insertion portion, which extends between the fastening portion and the second end of the channel and over which the diametral dimensions of the channel are at least substantially equal to those of the flange.

17. (Previously Presented) An end piece according to claim 16, wherein the core comprises an axial bearing surface which cooperates with the wall of the channel.

18. (Previously Presented) An end piece according to claim 17, wherein the core comprises at least one radially projecting cylinder sector delimited by a slot.

19. (Previously Presented) An end piece according to claim 2, wherein the core comprises an axial bearing surface which cooperates with the wall of the channel.

20. (Previously Presented) An end piece according to claim 19, wherein the core comprises at least one radially projecting cylinder sector delimited by a slot.